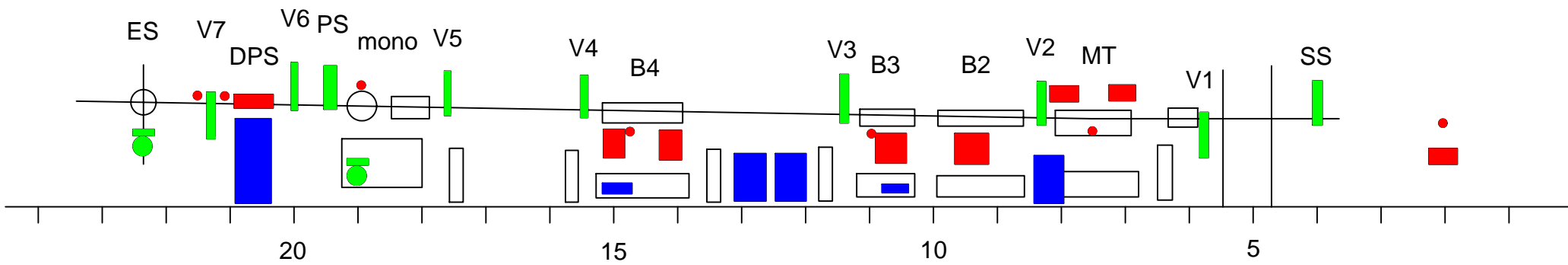


Beamline X8a Hazardous Equipment Inventory								
Jeff Keister, Jan 13 2005								
owner	description	location	ID	make	from source (m)	value	unit	control
	pneumatic gate valve	near shield wall	v1a	VAT	5.8	80	PSI	valve rack and interlocks, 24 V
	pneumatic gate valve	between mirror tank and bench 2	v2a	VAT	8.3	80	PSI	valve rack and interlocks, 24 V
	pneumatic gate valve	between bench 3 and bench 4	v3a	VAT	11.4	80	PSI	valve rack and interlocks, 24 V
	pneumatic gate valve	between bench 4 and DS pipe	v4a	VAT	15.4	80	PSI	valve rack and interlocks, 24 V
	pneumatic gate valve	between US pipe and mono	v5a	VAT	17.6	80	PSI	valve rack and interlocks, 24 V
	pneumatic gate valve	between mono and diff pump chamber	v6a	VAT	20.0	80	PSI	valve rack and interlocks, 24 V
	pneumatic gate valve	between DP chamber and end station	v7a	VAT	21.3	80	PSI	valve rack and interlocks, 24 V
NSLS	ion gauge	X8 front end	F/E	generic	2.0			controller in rack under Diff pump chamber
NSLS	ion gauge controller	rack over x7/x8 plug door	F/E		2.0			gauge at monochromator, top
NSLS	ion pump	X8 front end	F/E		2.0			controller in rack under Diff pump chamber
NSLS	ion pump controller	rack under X7a pipe near shield wall	F/E		2.0	10000	V	pump at diff pump section
NSLS	safety shutter	X8 front end	SS	NSLS	4.0	80	PSI	shutter panel (24 V)
	ion gauge	mirror tank, outboard side	MT	generic	7.5			controller on rack under X7b pipe
	ion gauge controller	under X7b pipe	MT	PE	8.3			gauge at mirror tank, outboard side
	ion pump	mirror tank, upstream (top)	MT, US	PE	7.0			controller on rack between bench 3 & 4
	ion pump controller	racks between bench 3 & bench 4	MT, US	PE	12.2	6000	V	pump at mirror tank, upstream (top)
	ion pump	mirror tank, downstream (top)	MT, DS	PE	8.0			controller on rack between bench 3 & 4
	ion pump controller	racks between bench 3 & bench 4	MT, DS	PE	12.2	6000	V	pump at mirror tank, downstream (top)
	ion pump	bench 2 (bottom)	B2	Varian	9.4			controller under bench 3
	ion pump controller	under bench 3	B2	Varian	10.6	10000	V	pump at bench 2 (bottom)
	ion gauge	bench 3, outboard side	B3	generic	11.0			controller on rack between bench 3 & 4
	ion gauge controller	racks between bench 3 & bench 4	B3	PE	12.2			gauge at bench 3, outboard side
	ion pump	bench 3 (bottom)	B3	Varian	10.7			controller on rack between bench 3 & 4
	ion pump controller	racks between bench 3 & bench 4	B3	Varian	12.2	10000	V	pump at bench 3 (bottom)
	ion gauge	bench 4, under DS side	B4	generic	14.6			controller in rack between bench 3 & 4
	ion gauge controller	racks between bench 3 & bench 4	B4	PE	12.7			gauge on underside of bench 4 (DS)
	ion pump, not in use	bench 4, upstream (bottom)	B4, US	Varian	14.1			none; not in use. No voltage source.
	ion pump	bench 4, downstream (bottom)	B4 (DS)	Varian	15.0			controller under bench 4
	ion pump controller	under bench 4	B4 (DS)	Varian	15.0	10000	V	pump at bench 4, downstream (bottom)
	pneumatic gate valve	mono turbo isolation	mono	VAT	19.0	80	PSI	panel and interlocks under mono chamber (120 VAC)
NSLS	photon shutter	between mono and valve 6	PS	NSLS	19.5	80	PSI	shutter panel (120 VAC?)
	ion gauge	monochromator, top	mono	generic	19.0			controller in rack under Diff pump chamber
	ion gauge controller	rack under diff pump chamber	mono	PE	20.7			gauge at monochromator, top
	ion pump	differential pumping section	DPS	Varian	20.7			controller in rack under Diff pump chamber
	ion pump controller	rack under diff pump chamber	DPS	Varian	20.7	10000	V	pump at diff pump section
	cold cathode gauge	diff pump section, downstream	DPS, DS	MKS	21.2	1000	V	controller in rack under diff pump chamber
	cold cathode gauge	endstation, upstream	ES	MKS	21.6	1000	V	controller in rack under diff pump chamber
	cold cathode controller	rack under diff pump chamber	CCG	MKS	20.7	1000	V	gauges on diff pump and end station chambers
	pneumatic gate valve	endstation turbo isolation	ES	VAT	22.3	80	PSI	panel and interlocks on ES frame (120 VAC)
	battery bias boxes	endstation or stored in cabinets				30	V	use labeled cable when wiring in series

X8a beamline



Hazardous items

Key



(blue) high voltage power supply / controller



(red) high voltage vacuum gauge (ionization or cold cathode)



(red) ion pump



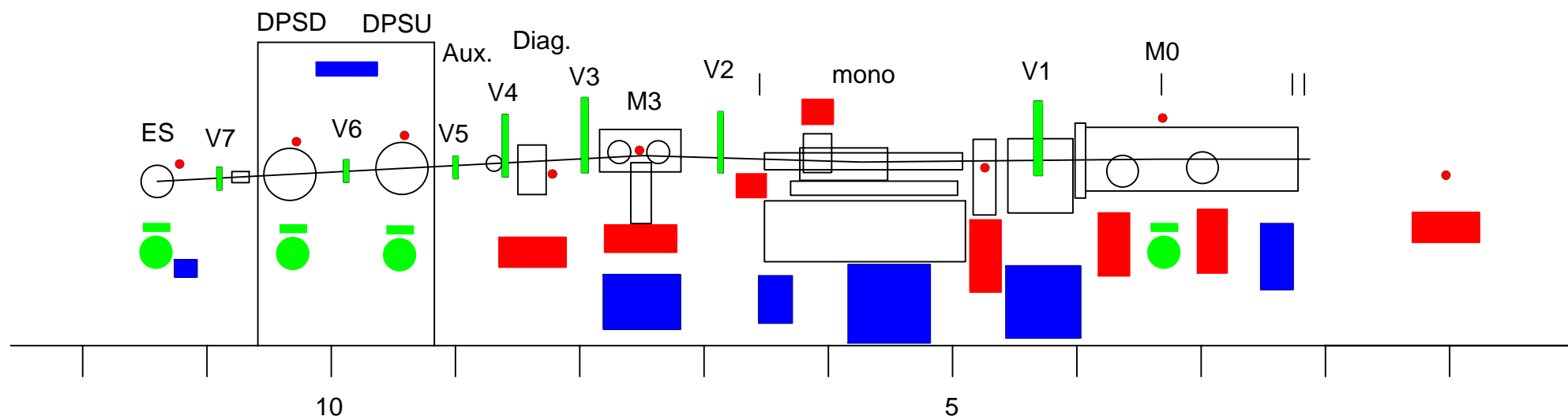
(green) pneumatic beamline valve



(green) pneumatic isolation valve for turbo or cryo pump

Beamline U3c Hazardous Equipment Inventory (including parts common for U3c and U3a)							
Jeff Keister, Jan 13 2005							
owner	description	location	ID	make	from source (m)	value	unit control
	pneumatic gate valve	downstream of first chamber (blue cage)	v1c	VAT	4.4	80	PSI valve rack and interlocks, 24 V
	pneumatic gate valve	between mono and M3 chambers	v2c	VAT	6.9	80	PSI valve rack and interlocks, 24 V
	pneumatic gate valve	between M3 and "diag" chambers	v3c	VAT	8.0	80	PSI valve rack and interlocks, 24 V
	pneumatic gate valve	between "diag" and "aux" chambers	v4c	VAT	8.7	80	PSI valve rack and interlocks, 24 V
	pneumatic gate valve	between "aux" and upstream DPS	v5c	VAT	9.0	80	PSI valve rack and interlocks, 24 V
	pneumatic gate valve	between upstream and downstream DPS	v6c	VAT	9.8	80	PSI valve rack and interlocks, 24 V
	pneumatic gate valve	between DPS and endstation	v7c	VAT	10.9	80	PSI valve rack and interlocks, 24 V
NSLS	ion gauge	U3 front end	F/E	generic	1.0		controller under diff pump section on U3A side
NSLS	ion gauge controller	under diff pump section on U3A side	F/E		5.5		gauge in U3 front end
NSLS	ion pump	U3 front end	F/E	PE	1.0		controller under first chamber, upstream side
NSLS	ion pump controller	under first chamber, upstream side	F/E	PE	2.4	10000	V pump in U3 front end
	ion pump	under first chamber, upstream pump	M0 US	Varian	2.9		controller under valve 1 (EZ1, blue cage)
	ion pump controller	under valve 1 (EZ1, blue cage)	M0 US	Varian	4.2	10000	V pump under first chamber, upstream
	ion pump	under first chamber, downstream pump	M0 DS	Varian	3.7		controller under valve 1 (EZ1, blue cage)
	ion pump controller	under valve 1 (EZ1, blue cage)	M0 DS	Varian	4.2	10000	V pump under first chamber, downstream
	pneumatic gate valve	first (M0) chamber turbo isolation	M0	GP	3.3	80	PSI at valve (under M0 chamber) - currently tagged out
	ion gauge	first (M0) chamber, top	M0	generic	3.3		controller under diff pump section on U3A side
	ion gauge controller	under diff pump section on U3A side	M0	PE	5.5		gauge at first (M0) chamber, top
	ion pump controller	under valve 1 (EZ1, blue cage)	mono	Varian	4.2	10000	V pump under upstream end of mono
	ion pump	under upstream end of mono	mono	Varian	4.7		controller under valve 1 (EZ1, blue cage)
	ion gauge	upstream end of mono, outboard side	mono	generic	3.3		controller under diff pump section on U3A side
	ion gauge controller	under diff pump section on U3A side	mono	PE	5.5		gauge at upstream end of mono, outboard side
	ion pump controller	floor under mono exit slit	exit slit	PE	6.5	10000	V pump under exit slit
	ion pump	under exit slit	exit slit	PE	6.6		controller on floor under mono exit slit
	ion pump controller	floor under mono exit slit	grating chbr	Varian	6.5	10000	V pump on top of mono grating chamber
	ion pump	top of mono grating chamber	grating chbr	Varian	6.0		controller on floor under mono exit slit
	mesh detector	upstream of M3 chamber	mesh		7.1	30	V 30 V bias battery and electrometer (20 V range) on M3 bench
	ion gauge	M3 mirror chamber, inboard side	M3	generic	7.5		controller under diff pump section on U3A side
	ion gauge controller	under diff pump section on U3A side	M3	PE	5.5		gauge on M3 chamber (inboard side)
	ion pump	under M3 chamber	M3	PE	7.5		controller under M3 chamber
	ion pump controller	under M3 chamber	M3	PE	7.5	6000	V pump under M3 chamber
	ion gauge	diag chamber, upstream side	diag	generic	8.2		controller under diff pump section on U3A side
	ion gauge controller	under diff pump section on U3A side	diag	PE	5.5		gauge on diag chamber (upstream side)
	ion pump	under diag chamber	diag	PE	8.3		controller under M3 chamber
	ion pump controller	under M3 chamber	diag	PE	7.5	6000	V pump under diag chamber
	pneumatic gate valve	U3C diff section, upstream cryo isolation	DPSU		9.6	80	PSI over DPS chambers, on frame
	pneumatic gate valve	U3C diff section, downstream cryo isolation	DPSP		10.3	80	PSI over DPS chambers, on frame
	ion gauge	U3C diff section, upstream, inboard side	DPSU	generic	9.4		controller over DPS chambers, on frame
	ion gauge controller	over DPS chambers, on frame	DPSU	PE	9.9		gauge at U3C diff section, upstream, inboard side
	cold cathode gauge	U3C diff section, downstream, top	DPSP	MKS	10.4		controller on endstation table
	cold cathode gauge	endstation, upstream, inboard side	ES	MKS	11.2		controller on endstation table
	cold cathode controller	endstation table	CCG	MKS	11.2		2 gauges at: 1) U3C diff section, downstream, top and 2) endstation, upstream, inboard side
	pneumatic gate valve	endstation turbo isolation	ES		11.4	80	PSI interlock panel on ES frame
	battery bias boxes	endstation or stored in cabinets				30	V use labeled cable when wiring in series

U3c beamline



Hazardous items

Key



(blue) high voltage power supply / controller



(red) high voltage vacuum gauge (ionization or cold cathode)



(red) ion pump



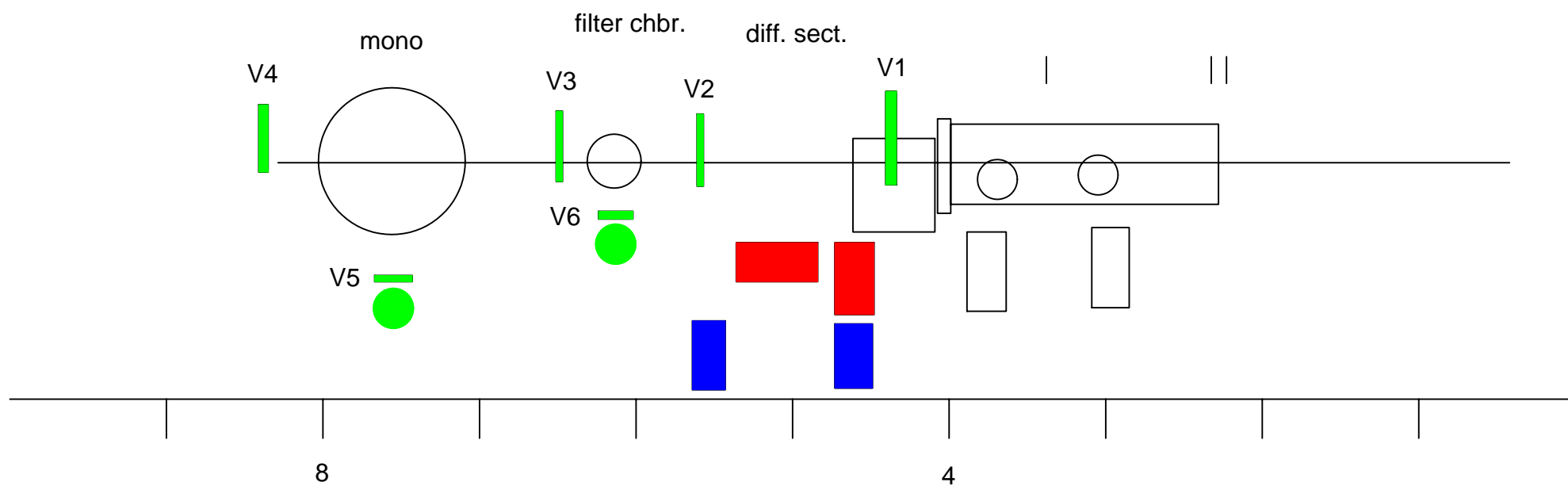
(green) pneumatic beamline valve



(green) pneumatic isolation valve for turbo or cryo pump

Beamline U3a Hazardous Equipment Inventory (items common with U3c are found on U3c list)							
Jeff Keister, Jan 13 2005							
owner	description	location	ID	make	from source (m)	value	unit control
U3A	pneumatic gate valve	downstream of first chamber (blue cage)	v1a	VAT	4.4	80	PSI panel (powered off, tagged closed)
U3A	pneumatic gate valve	downstream of U3A diff pump section	v2a	VAT	6.0	80	PSI panel (powered off, tagged closed)
U3A	pneumatic gate valve	between filter and mono chamber	v3a		6.5		panel (powered off, tagged closed)
U3A	pneumatic gate valve	downstream end of mono chamber	v4a		8.4		panel (powered off, tagged closed)
U3A	pneumatic gate valve	U3A mono turbo isolation	v5a		6.1		panel (powered off, tagged closed)
U3A	pneumatic gate valve	U3A filter chbr turbo isolation	v6a		7.5		panel (powered off, tagged closed)
U3A	ion pump	under upstream side of U3A diff section		Varian	5.0		controller under upstream U3A diff section pump
U3A	ion pump controller	under upstream U3A diff section pump		Varian	5.0	10000	V pump under upstream side of U3A diff section
U3A	ion pump	under downstream side of U3A diff section		PE	5.5		controller under U3A valve 2
U3A	ion pump controller	under U3A valve 2		PE	5.8	10000	V pump under downstream side of U3A diff section

U3a beamline



Hazardous items

Key



(blue) high voltage power supply / controller



(red) high voltage vacuum gauge (ionization or cold cathode)



(red) ion pump



(green) pneumatic beamline valve



(green) pneumatic isolation valve for turbo or cryo pump